UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,054	12/31/2001	Rajeev K. Nalawadi	42390P12867	9089

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EXAMINER
BAE, JI H

ART UNIT	PAPER NUMBER
2115	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
Office Action Summary		10/039,054	NALAWADI ET AL.
		Examiner	Art Unit
		Ji H. Bae	2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 March 0207</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible

for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has

been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37

CFR 1.114. Applicant's submission filed on 16 March 2007 has been entered.

Response to Arguments

Applicant's arguments filed on 16 March 2007 have been fully considered but they are

not persuasive.

Applicant has amended the claims to include the additional limitation of generating an

SMI when a "complex task is encountered." Applicant further argues that Hobson teaches away

from a complex task, asserting that Hobson merely teaches the detecting of whether a sleep

enable bit is set.

With regards to applicant's "complex task", it is noted by the examiner that the applicant

has provided a very open-ended definition of what might constitute a complex task. For

example, on page 5, paragraph 16 of the originally filed specification, the applicant teaches that

complex tasks "include, but are not limited to, handling and transferring large amounts of data

that has to be gathered dynamically during runtime, saving and restoring devices coming out of

suspend state, determining device standards, accessing features not accessible to the ASL

code and so forth." Based on this, the examiner does not believe there is any reason to require

that a complex task be limited to the exemplary tasks. Furthermore, apart from the cited portion

of applicant's specification (which has already been demonstrated as being open-ended), the

applicant has not provided any specific criteria for establishing the complexity of a task.

Additionally, the examiner refers to col. 5, lines 40-48 as an illustration of the task

executed by the system of Hobson. The examiner believes that the applicant has oversimplified

the nature of the task performed. Applicant's arguments state that Hobson merely teaches that

the BIOS detects whether a sleep enable bit is set. However, the examiner points out that the

process of sleeping includes, among other things, executing OEM routines for placing target

devices into a proper state for remote manageability [col. 5, lines 40-42]. The applicant has

narrowly defined that task as comprising only the setting of a bit, when Hobson clearly teaches

that the process of sleeping involves a number of other steps. Applicant's open-ended definition

of "complex task" provides no grounds for disallowing Hobson's sleeping process as being

designated as a complex task. Furthermore, the process of transitioning to and from a sleeping

state is at least implied by applicant's teaching that a complex task may comprise saving and

restoring devices coming out of a suspend state.

Specification

The specification is objected to as failing to provide proper antecedent basis for the

claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the

following is required:

Claims 13-18 recite a machine readable medium having stored therein a plurality of

machine readable instructions; however, such a machine readable medium is not taught as

being an embodiment of applicant's invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

Regarding independent claims 1, 7, and 13, the claims each recite generating an SMI

"when a complex task is encountered." Applicant's specification gives an open-ended definition

for what may constitute a "complex task". For example, in the originally filed specification,

pages 5 and 6, paragraph 16 states that complex tasks may "include, but are not limited to,

handling and transferring large amounts of data that has to be gathered dynamically during

runtime, saving and restoring devices coming out of suspend state, determining device

standards, accessing features not accessible to the ASL code and so forth." Applicant's

definition of "complex task" does not properly limit the scope of the claims, since according to

applicant's specification, a complex task may comprise these exemplary tasks, as well as an

unspecified set of addition tasks. Additionally, there is no specific criteria in applicant's

specification for determining the complexity of a given task.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hobson,

U.S. Patent No. 6,122,748.

Regarding claim 1, Hobson teaches:

generating a SMI request under ACPI control when a complex task is encountered [col.

5, lines 35-48];

changing an operation mode of a processor to the SMM in response to the SMI request;

and

executing a resume ACPI control process to return the processor to ACPI control after

the process is complete [col. 5, lines 54-62].

Regarding claim 13, Hobson teaches the method of claim 1. Hobson also teaches the

machine readable medium with instructions to implement the claimed method. Hobson also

teaches that while in SMM, the processor executes tasks [col. 6, lines 60-64, configuring].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3, 7-9, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Hobson in view of Intel [Intel's SL Enhanced Intel486 Microprocessor Family, June 1993].

Regarding claim 2, Hobson teaches the method of claim 1, but does not teach saving

processor state map information in a first area of a memory upon reception of the SMI request.

Intel teaches that upon generating an SMI, the processor saves the state of the system

or SMRAM [page 2, "System-Level Power Management"].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Hobson and Intel by saving the processor state map information in a first area of memory, as taught by Intel. Hobson's disclosure teaches a processor transitioning between an ACPI control and an SMM, and teaches that exemplary processors include those from the Intel 80X86 family [col. 3, lines 40-42]. Since the disclosure of Intel is directed towards the same family of processors, it would have been obvious to one of ordinary skill in the art that the transitioning between ACPI and SMM would have been implemented in the manner taught by Intel.

Regarding claim 3, Hobson teaches setting SMI enable in a SMI generation register [col. 4, lines 14-18].

Regarding claims 7-9, Hobson and Intel teaches the method of claims 1-3. Hobson also teaches that while in SMM, the processor executes tasks [col. 6, lines 60-64, configuring]. Additionally, it would have been obvious to one of ordinary skill in the art to delegate tasks to various processors to achieve faster execution.

Regarding claims 14 and 15, Hobson and Intel teaches the method of claims 2 and 3. Hobson and Intel also teaches the machine readable medium with instructions to implement the claimed method.
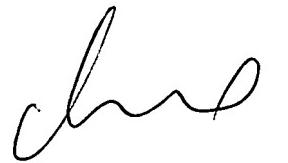
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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